

REMARKS

Summary of the Amendment

Upon entry of the above amendment, claims 1, 3, 9, 23, 32, 43-46, 50 and 61 will have been amended and claims 66-70 will have been added. Accordingly, claims 1-70 will be pending with claims 1, 43 and 61 being in independent form.

Summary of the Official Action

In the instant Office Action, the Examiner objected to the claims. Finally, the Examiner rejected claims 1-65 over the art of record. By the present amendment and remarks, Applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Objection to the Claims is moot and/or improper

The Examiner indicated that if claims 3, 12, 21, 44 and 49 are found to be allowable, then claims 9, 32, 13, 23, 46 and 50 would be objected to as being substantial duplicates of the noted allowable claims. Applicant respectfully disagrees.

Applicant submits that the noted claims are not substantial duplicates as asserted by the Examiner. As the Examiner will note, the claims asserted to be duplicates utilize different language and provide different scope.

On the other hand, in view of the fact that some of the noted claims have been

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amended, Applicant submits that this basis of objection is now moot.

Accordingly, the objection is believed to be rendered moot and the Examiner is requested to withdraw this objection.

Traversal of Rejections Under 35 U.S.C. § 102

Over JP '408

Applicant traverses the rejection of claims 1-14, 17-19, 21, 23-26, 30-51, 54-56, 58 and 60 under 35 U.S.C. § 102(b) as being anticipated by JP 4-154408.

The Examiner asserted that this document discloses all the features recited in these claims including the recited base pitches. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a circumferential groove arranged in a central area of the tread, the grooves running generally diagonally into the central area of the tread, the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, as recited in amended independent claim 1; and inter alia, a tread comprising a circumference, profile structures, circumferential grooves arranged on opposite sides of a

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center of the tread, grooves which cross the circumferential grooves, cross-grooves which extend to the circumferential grooves, and blocks arranged between the center of the tread and the circumferential grooves, the grooves extending from a central area of the tread to each tread edge and having greater curvature in the central area than in an area of each tread edge, the grooves and the profile structures forming base pitches, the base pitches being sequentially arranged over an entire circumferential area and having a pitch sequence which minimizes tire noise, one of the at least two base pitches comprising at least two profile structures and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves, as recited in independent claim 43.

Applicant acknowledges that JP '408 discloses a tire having diagonal grooves 4, 7 and 8 which extend from a center area of the tread to the tread edges and that the tread apparently utilizes base pitches having different circumferential lengths A, B and C (see Fig. 1). However, it is clear from a fair review of the disclosure of this document that JP '408 does not disclose, or even suggest, a circumferential groove arranged in a central area of the tread, much less, that the grooves and the profile structures which form the base pitches are circumferentially arranged on opposite sides of the circumferential groove and/or circumferential grooves arranged on opposite sides of a center of the tread in combination with grooves which cross the circumferential grooves and cross-grooves which extend to the circumferential grooves. To the contrary, the tread in Figs. 1-3 fail to show any circumferential grooves. Furthermore, while it is apparent that Fig. 4 shows a tire having circumferential grooves, it is not apparent that this embodiment is disclosed as

having the recited base pitches or even the different lengthy base pitches shown in Fig. 1.

Applicant emphasizes that whereas the invention utilizes a circumferential groove 5 arranged in a central area of the tread and that the grooves 3 and the profile structures 6a which form the base pitches are circumferentially arranged on opposite sides of the circumferential groove 5, the tire shown in Figs. 1-3 of JP '408 utilizes no circumferential grooves.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of JP '408.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because the applied document fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper reading of this document fails to render unpatentable the combination of features recited in at least independent claims 1 and 43.

Moreover, Applicant submits that dependent claims 2-14, 17-19, 21, 23-26, 30-42, 44-51, 54-56, 58 and 60 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of JP '408 discloses or suggests, in combination: that the vehicle tire is a pneumatic radial tire as recited in claim 2; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least

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two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 3; that the profile structures form an outer surface of the tread as recited in claim 4; that the base pitches are arranged according to a specific sequence as recited in claim 5; that the profile structures in the another of the at least two base pitches are arranged according to a specific sequence as recited in claim 6; that the at least one profile structure in the one of the at least two base pitches and the at least two profile structures in the another of the at least two base pitches are arranged with different specific sequences as recited in claim 7; that the one of the at least two base pitches comprises at least two profile structures having different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 8; that the one of the at least two base pitches comprises first and second sequentially arranged profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth sequentially arranged profile structures subdivided by at least two cross-grooves as recited in claim 9; that the first and second profile structures have different circumferential lengths as recited in claim 10; that the first and second profile structures have the same circumferential lengths as recited claim 11; that the first and at least one of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 12; that the second and at least one of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim

13; that at least two of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 14; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 17; that at least two of the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 18; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 19; that each of the base pitches comprises at least two profile structures as recited in claim 21; that some of the base pitches have two profile structures as recited in claim 23; that each of the base pitches has three profile structures as recited in claim 24; that each of the base pitches has four profile structures as recited in claim 25; that each of the base pitches has five profile structures as recited in claim 26; that the at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 30; that each at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 31; that the one of the at least two base pitches has only first and second profile structures subdivided by a first cross-groove and the another of the at least two base pitches has only third, fourth and fifth profile structures subdivided by two second cross-grooves as recited in claim 32; that a width of the first cross-groove is different than a width of at least one of the two second cross-grooves as recited in claim 33; that a width of the first cross-groove is different than a width of each of the two second cross-grooves as recited in claim 34; that each of the profile structures is arranged in a circumferential row as recited in claim 35; that the circumferential row is arranged in a shoulder of the tread as recited in claim 36; that the tread further comprises at least one tread edge and wherein the grooves extend from the

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central area to the at least one tread edge as recited in claim 37; that the grooves have greater curvature in the central area than in an area of the at least one tread edge as recited in claim 38; that the grooves are oriented at a first angle, relative to a circumferential direction, in the central area and at a second angle, relative to the circumferential direction, in an area of the at least one tread edge, and wherein the first angle is different from the second angle as recited in claim 39; that the first angle is less than the second angle as recited in claim 40; that the first angle is less approximately 45 degrees and the second angle is greater than approximately 45 degrees as recited in claim 41; a method of making the tire of claim 1 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence to minimize tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 42; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 44; that the one of the at least two base pitches comprises at least two profile structures having different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different

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circumferential lengths subdivided by at least two cross-grooves as recited in claim 45; that the one of the at least two base pitches comprises first and second profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth profile structures subdivided by at least two cross-grooves as recited in claim 46; that the first and second profile structures have different circumferential lengths as recited in claim 47; that the first and second profile structures have the same circumferential lengths as recited in claim 48; that the first and at least one of third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 49; that the second and at least one of the third, fourth and fifth profile structures are arranged in sequence after the first profile structure and have the same circumferential lengths as recited in claim 50; that at least two of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 51; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 54; that at least two of the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 55; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 56; that each of the base pitches comprises at least two profile structures as recited in claim 58; a method of making the tire of claim 43 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence that minimizes tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and

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providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 60.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Over Cesarini

Applicant traverses the rejection of claims 1-6, 8-26 and 30-64 under 35 U.S.C. § 102(b) as being anticipated by WO 99/16631 to CESARINI et al.

The Examiner asserted that this document discloses all the features recited in these claims including the recited base pitches. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a circumferential groove arranged in a central area of the tread, the grooves running generally diagonally into the central area of the tread, the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, as recited in amended independent claim 1; inter alia, a tread comprising a circumference, profile structures, circumferential grooves arranged on opposite sides of a

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center of the tread, grooves which cross the circumferential grooves, cross-grooves which extend to the circumferential grooves, and blocks arranged between the center of the tread and the circumferential grooves, the grooves extending from a central area of the tread to each tread edge and having greater curvature in the central area than in an area of each tread edge, the grooves and the profile structures forming base pitches, the base pitches being sequentially arranged over an entire circumferential area and having a pitch sequence which minimizes tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least two profile structures and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves, as recited in independent claim 43; inter alia, a tread comprising a tread comprising a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove, tread edges, and grooves, the grooves extending from the central circumferential groove to each of the tread edges, whereby oppositely extending grooves form V-shaped grooves which extend to the tread edges, each of the grooves having greater curvature in the central area than in an area of the tread edges, the grooves and the profile structures being arranged on each side of the central circumferential groove forming base pitches, each base pitch having one groove and at least two profile structures having different circumferential lengths, the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise, the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths,

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the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove as recited in amended independent claim 61.

Applicant acknowledges that CESARINI discloses a tire having diagonal grooves 15, 16, 17 and 19 which extend from a center area of the tread to the tread edges (see Fig. 2). However, Applicant disputes that CESARINI discloses base pitches having different circumferential lengths. While the Examiner has identified the disclosure of page 10 of this document as disclosing this feature, a fair review of the disclosure of page 10 merely suggest that the overall pitch length of adjoining grooves or groups of consecutive grooves can be varied whereby each consecutive set of grooves has the same length. There is simply no apparent disclosure in CESARINI with regard to utilizing different circumferential length base pitches.

Furthermore, it is clear from a fair review of the disclosure of this document that CESARINI does not disclose, or even suggest, a circumferential groove arranged in a central area of the tread, much less, that the grooves and the profile structures which form the base pitches are circumferentially arranged on opposite sides of the circumferential groove, and/or circumferential grooves arranged on opposite sides of a center of the tread in combination with grooves which cross the circumferential grooves and cross-grooves which extend to the circumferential grooves, and/or a central area having a central circumferential groove in combination with profile structures arranged on opposite sides of the central circumferential groove and grooves extending from the central circumferential

groove to each of the tread edges. To the contrary, the tread in Figs. 2 and 3 fail to show any circumferential grooves in the central area of the tread.

Applicant emphasizes that whereas the invention utilizes a circumferential groove 5 arranged in a central area of the tread and that the grooves 3 and the profile structures 6a which form the base pitches are circumferentially arranged on opposite sides of the circumferential groove 5, the tire shown in Figs. 2-3 of CESARINI utilizes circumferential grooves 21 and 22 only in the tread edge areas.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of CESARINI.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because the applied document fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper reading of this document fails to render unpatentable the combination of features recited in at least independent claims 1, 43 and 61.

Moreover, Applicant submits that dependent claims 2-6, 8-26, 30-42, 44-60 and 62-64 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of CESARINI discloses or suggests, in combination: that the vehicle tire is a pneumatic radial tire as recited in claim 2; that the one of the at least two base pitches comprises at least two profile structures

subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 3; that the profile structures form an outer surface of the tread as recited in claim 4; that the base pitches are arranged according to a specific sequence as recited in claim 5; that the profile structures in the another of the at least two base pitches are arranged according to a specific sequence as recited in claim 6; that the one of the at least two base pitches comprises at least two profile structures having different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 8; that the one of the at least two base pitches comprises first and second sequentially arranged profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth sequentially arranged profile structures subdivided by at least two cross-grooves as recited in claim 9; that the first and second profile structures have different circumferential lengths as recited in claim 10; that the first and second profile structures have the same circumferential lengths as recited claim 11; that the first and at least one of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 12; that the second and at least one of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 13; that at least two of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 14; that the first,

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second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 15; that the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 16; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 17; that at least two of the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 18; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 19; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 20; that each of the base pitches comprises at least two profile structures as recited in claim 21; that each of the base pitches comprises the same number of profile structures as recited in claim 22; that some of the base pitches have two profile structures as recited in claim 23; that each of the base pitches has three profile structures as recited in claim 24; that each of the base pitches has four profile structures as recited in claim 25; that each of the base pitches has five profile structures as recited in claim 26; that the at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 30; that each at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 31; that the one of the at least two base pitches has only first and second profile structures subdivided by a first cross-groove and the another of the at least two base pitches has only third, fourth and fifth profile structures subdivided by two second cross-grooves as recited in claim 32; that a width of the first cross-groove is different than a width of at least one of the two second cross-grooves as recited in claim 33; that a width of the first cross-groove is different than a width of each of the two second

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cross-grooves as recited in claim 34; that each of the profile structures is arranged in a circumferential row as recited in claim 35; that the circumferential row is arranged in a shoulder of the tread as recited in claim 36; that the tread further comprises at least one tread edge and wherein the grooves extend from the central area to the at least one tread edge as recited in claim 37; that the grooves have greater curvature in the central area than in an area of the at least one tread edge as recited in claim 38; that the grooves are oriented at a first angle, relative to a circumferential direction, in the central area and at a second angle, relative to the circumferential direction, in an area of the at least one tread edge, and wherein the first angle is different from the second angle as recited in claim 39; that the first angle is less than the second angle as recited in claim 40; that the first angle is less approximately 45 degrees and the second angle is greater than approximately 45 degrees as recited in claim 41; a method of making the tire of claim 1 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence to minimize tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 42; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each

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other as recited in claim 44; that the one of the at least two base pitches comprises at least two profile structures having different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 45; that the one of the at least two base pitches comprises first and second profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth profile structures subdivided by at least two cross-grooves as recited in claim 46; that the first and second profile structures have different circumferential lengths as recited in claim 47; that the first and second profile structures have the same circumferential lengths as recited in claim 48; that the first and at least one of third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 49; that the second and at least one of the third, fourth and fifth profile structures are arranged in sequence after the first profile structure and have the same circumferential lengths as recited in claim 50; that at least two of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 51; that the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 52; that the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 53; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 54; that at least two of the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 55; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in

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claim 56; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 57; that each of the base pitches comprises at least two profile structures as recited in claim 58; that each of the base pitches comprises the same number of profile structures as recited in claim 59; a method of making the tire of claim 43 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence that minimizes tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 60; that each of the first base pitches comprises at least two profile structures subdivided by at least one cross-groove and wherein each of the second base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 62; that the base pitches further comprises third base pitches, wherein the first, second and third base pitches have different circumferential lengths as recited in claim 63; and that each of the third base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 64.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Traversal of Rejection Under 35 U.S.C. § 102/103

Applicant traverses the rejection of claims 1-7, 9, 10, 19-24, 32, 35-40, 42-44, 46, 47

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and 56-62 under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over EP 0 970 822.

The Examiner asserted that this document discloses or suggest all the features recited in these claims including the recited base pitches. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a circumferential groove arranged in a central area of the tread, the grooves running generally diagonally into the central area of the tread, the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, as recited in amended independent claim 1; inter alia, a tread comprising a circumference, profile structures, circumferential grooves arranged on opposite sides of a center of the tread, grooves which cross the circumferential grooves, cross-grooves which extend to the circumferential grooves, and blocks arranged between the center of the tread and the circumferential grooves, the grooves extending from a central area of the tread to each tread edge and having greater curvature in the central area than in an area of each tread edge, the grooves and the profile structures forming base pitches, the base pitches

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being sequentially arranged over an entire circumferential area and having a pitch sequence which minimizes tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least two profile structures and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves, as recited in independent claim 43; inter alia, a tread comprising a tread comprising a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove, tread edges, and grooves, the grooves extending from the central circumferential groove to each of the tread edges, whereby oppositely extending grooves form V-shaped grooves which extend to the tread edges, each of the grooves having greater curvature in the central area than in an area of the tread edges, the grooves and the profile structures being arranged on each side of the central circumferential groove forming base pitches, each base pitch having one groove and at least two profile structures having different circumferential lengths, the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise, the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove as recited in amended independent claim 61.

Applicant acknowledges that EP '822 discloses a tire having diagonal grooves 2b/3b which extend from a center area of the tread to the tread edges and base pitches having

different circumferential lengths (see Fig. 2). However, it is clear from a fair review of the disclosure of this document that EP '822 does not disclose, or even suggest, at least two of the base pitches having different circumferential lengths in combination with one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, and/or base pitches being sequentially arranged over an entire circumferential area and having a pitch sequence which minimizes tire noise in combination with at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least two profile structures and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves, and/or each base pitch having one groove and at least two profile structures having different circumferential lengths in combination with the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise and the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove. Applicant notes that the tread in Fig. 2 of EP 822 merely shows two apparently different pitch lengths with two profile structures of each pitch length having the same circumferential length.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of EP' 822.

Because the applied document fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper reading of this document fails to render unpatentable the combination of features recited in at least independent claims 1, 43 and 61.

Moreover, Applicant submits that dependent claims 2-7, 9, 10, 19-24, 32, 35-40, 42, 44, 46, 47, 56-60 and 62 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of EP '822 discloses or suggests, in combination: that the vehicle tire is a pneumatic radial tire as recited in claim 2; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 3; that the profile structures form an outer surface of the tread as recited in claim 4; that the base pitches are arranged according to a specific sequence as recited in claim 5; that the profile structures in the another of the at least two base pitches are arranged according to a specific sequence as recited in claim 6; that the at least one profile structure in the one of the at least two base pitches and the at least two profile structures in the another of the at least two base pitches are arranged with different specific sequences as recited in claim 7; that the one of the at least two base pitches comprises first and second sequentially arranged profile structures subdivided by at least one cross-groove and the another of the at least

two base pitches comprises third, fourth and fifth sequentially arranged profile structures subdivided by at least two cross-grooves as recited in claim 9; that the first and second profile structures have different circumferential lengths as recited in claim 10; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 19; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 20; that each of the base pitches comprises at least two profile structures as recited in claim 21; that each of the base pitches comprises the same number of profile structures as recited in claim 22; that some of the base pitches have two profile structures as recited in claim 23; that each of the base pitches has three profile structures as recited in claim 24; that the one of the at least two base pitches has only first and second profile structures subdivided by a first cross-groove and the another of the at least two base pitches has only third, fourth and fifth profile structures subdivided by two second cross-grooves as recited in claim 32; that each of the profile structures is arranged in a circumferential row as recited in claim 35; that the circumferential row is arranged in a shoulder of the tread as recited in claim 36; that the tread further comprises at least one tread edge and wherein the grooves extend from the central area to the at least one tread edge as recited in claim 37; that the grooves have greater curvature in the central area than in an area of the at least one tread edge as recited in claim 38; that the grooves are oriented at a first angle, relative to a circumferential direction, in the central area and at a second angle, relative to the circumferential direction, in an area of the at least one tread edge, and wherein the first angle is different from the second angle as recited in claim 39; that the first angle is less

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than the second angle as recited in claim 40; a method of making the tire of claim 1 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence to minimize tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 42; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 44; that the one of the at least two base pitches comprises first and second profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth profile structures subdivided by at least two cross-grooves as recited in claim 46; that the first and second profile structures have different circumferential lengths as recited in claim 47; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 56; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 57; that each of the base pitches comprises at least two profile structures as recited in claim 58; that each of the base pitches comprises the same number of profile structures as recited in claim 59; a method of making the tire of claim 43 wherein the method comprises forming the tread

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with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence that minimizes tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 60; and that each of the first base pitches comprises at least two profile structures subdivided by at least one cross-groove and wherein each of the second base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 62.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b)/103.

Traversal of Rejection Under 35 U.S.C. § 103(a)

Over CESARINI with JP '408 and EP '436 and/or Bush

Applicant respectfully traverses the rejection of claims 1-64 under 35 U.S.C. § 103(a) as unpatentable over CESARINI in view of JP '408 and optionally further in view of at least one EP 0 268 436 and US patent 2,255,994 to BUSH.

The Examiner acknowledged that CESARINI lacks, among other things, the recited different base pitch lengths that reduce noise. However, the Examiner asserted that these features are taught by each of JP '408, EP '436 and BUSH and that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggests, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a circumferential groove arranged in a central area of the tread, the grooves running generally diagonally into the central area of the tread, the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, as recited in amended independent claim 1; inter alia, a tread comprising a circumference, profile structures, circumferential grooves arranged on opposite sides of a center of the tread, grooves which cross the circumferential grooves, cross-grooves which extend to the circumferential grooves, and blocks arranged between the center of the tread and the circumferential grooves, the grooves extending from a central area of the tread to each tread edge and having greater curvature in the central area than in an area of each tread edge, the grooves and the profile structures forming base pitches, the base pitches being sequentially arranged over an entire circumferential area and having a pitch sequence which minimizes tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least two profile structures and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves, as

recited in independent claim 43; inter alia, a tread comprising a tread comprising a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove, tread edges, and grooves, the grooves extending from the central circumferential groove to each of the tread edges, whereby oppositely extending grooves form V-shaped grooves which extend to the tread edges, each of the grooves having greater curvature in the central area than in an area of the tread edges, the grooves and the profile structures being arranged on each side of the central circumferential groove forming base pitches, each base pitch having one groove and at least two profile structures having different circumferential lengths, the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise, the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove as recited in amended independent claim 61.

As explained above, Applicant acknowledges that CESARINI discloses a tire having diagonal grooves 15, 16, 17 and 19 which extend from a center area of the tread to the tread edges (see Fig. 2). However, Applicant disputes that CESARINI discloses base pitches having different circumferential lengths. A fair review of the disclosure of page 10 merely suggest that the overall pitch length of adjoining grooves or groups of consecutive grooves can be varied whereby each consecutive set of grooves has the same length. There is simply no apparent disclosure in CESARINI with regard to utilizing different

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circumferential length base pitches. Furthermore, it is clear from a fair review of the disclosure of this document that CESARINI does not disclose, or even suggest, a circumferential groove arranged in a central area of the tread, much less, that the grooves and the profile structures which form the base pitches are circumferentially arranged on opposite sides of the circumferential groove, and/or circumferential grooves arranged on opposite sides of a center of the tread in combination with grooves which cross the circumferential grooves and cross-grooves which extend to the circumferential grooves, and/or a central area having a central circumferential groove in combination with profile structures arranged on opposite sides of the central circumferential groove and grooves extending from the central circumferential groove to each of the tread edges. To the contrary, the tread in Figs. 2 and 3 fail to show any circumferential grooves in the central area of the tread.

Applicant also acknowledges that JP '408 discloses a tire having diagonal grooves 4, 7 and 8 which extend from a center area of the tread to the tread edges and that the tread apparently utilizes base pitches having different circumferential lengths A, B and C (see Fig. 1). However, it is clear from a fair review of the disclosure of this document that JP '408 does not disclose, or even suggest, a circumferential groove arranged in a central area of the tread, much less, that the grooves and the profile structures which form the base pitches are circumferentially arranged on opposite sides of the circumferential groove and/or circumferential grooves arranged on opposite sides of a center of the tread in combination with grooves which cross the circumferential grooves and cross-grooves which extend to the circumferential grooves and/or a central area having a central circumferential

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groove in combination with profile structures arranged on opposite sides of the central circumferential groove and grooves extending from the central circumferential groove to each of the tread edges. To the contrary, the tread in Figs. 1-3 fail to show any circumferential grooves. Furthermore, while it is apparent that Fig. 4 shows a tire having circumferential grooves, it is not apparent that this embodiment is disclosed as having the recited base pitches or even the different lengthy base pitches shown in Fig. 1.

With regard to EP '436, Applicant acknowledges that EP '436 discloses a tire having different base pitch lengths (see Fig. 1). However, it is not apparent that EP '436 discloses or suggests diagonal grooves and/or grooves having a greater curvature in the central area than in an area of each tread edge. Thus, this document cannot cure the deficiencies of CESARANI and JP '408.

With regard to BUSH, Applicant acknowledges that BUSH apparently discloses a tire having different base pitch lengths (see Fig. 3). However, it is not apparent that BUSH discloses or suggests diagonal grooves and/or grooves having a greater curvature in the central area than in an area of each tread edge. Thus, this document also cannot cure the deficiencies of CESARANI and JP '408.

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claims 1, 43 and 61. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of CESARINI, JP '408, EP '436 and BUSH can render unpatentable the combination of features recited in at least independent claims 1, 43 and 61.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied document in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claims 1, 43 and 61 is not rendered obvious by any reasonable inspection of this disclosure.

Applicant directs the Examiner's attention to the guidelines identified in M.P.E.P section 2141 which state that "[i]n determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

As this section clearly indicates, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

Moreover, it has been legally established that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) Although a prior art device 'may be capable of being modified to

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run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.’ 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).”

Additionally, it has been held that a statement that modifications of the prior art to meet the claimed invention would have been “well within the ordinary skill of the art at the time the claimed invention was made” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levensgood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

Furthermore, Applicant submits that dependent claims 2-42, 44-60 and 62-65 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of CESARINI, JP ‘408, EP ‘436 and BUSH discloses or suggests, in combination: that the vehicle tire is a pneumatic radial tire as recited in claim 2; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 3; that the profile

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structures form an outer surface of the tread as recited in claim 4; that the base pitches are arranged according to a specific sequence as recited in claim 5; that the profile structures in the another of the at least two base pitches are arranged according to a specific sequence as recited in claim 6; that the at least one profile structure in the one of the at least two base pitches and the at least two profile structures in the another of the at least two base pitches are arranged with different specific sequences as recited in claim 7; that the one of the at least two base pitches comprises at least two profile structures having different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 8; that the one of the at least two base pitches comprises first and second sequentially arranged profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth sequentially arranged profile structures subdivided by at least two cross-grooves as recited in claim 9; that the first and second profile structures have different circumferential lengths as recited in claim 10; that the first and second profile structures have the same circumferential lengths as recited claim 11; that the first and at least one of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 12; that the second and at least one of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 13; that at least two of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 14; that the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 15; that the first,

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second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 16; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 17; that at least two of the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 18; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 19; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 20; that each of the base pitches comprises at least two profile structures as recited in claim 21; that each of the base pitches comprises the same number of profile structures as recited in claim 22; that some of the base pitches have two profile structures as recited in claim 23; that each of the base pitches has three profile structures as recited in claim 24; that each of the base pitches has four profile structures as recited in claim 25; that each of the base pitches has five profile structures as recited in claim 26; that one of the profile structures is the shortest of the profile structures in circumferential length and wherein one of the profile structures is the longest of the profile structures in circumferential length, and wherein a ratio of the circumferential length of the shortest profile structure to the circumferential length of the longest profile structure is between approximately 1 : 1.2 and approximately 1 : 2 as recited in claim 27; that the ratio is between approximately 1 : 1.2 and approximately 1 : 1.6 as recited in claim 28; that the ratio is between approximately 1 : 1.6 and approximately 1 : 2 as recited in claim 29; that the at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 30; that each at least one cross-groove is narrower in width than at least one of the grooves as recited in claim

31; that the one of the at least two base pitches has only first and second profile structures subdivided by a first cross-groove and the another of the at least two base pitches has only third, fourth and fifth profile structures subdivided by two second cross-grooves as recited in claim 32; that a width of the first cross-groove is different than a width of at least one of the two second cross-grooves as recited in claim 33; that a width of the first cross-groove is different than a width of each of the two second cross-grooves as recited in claim 34; that each of the profile structures is arranged in a circumferential row as recited in claim 35; that the circumferential row is arranged in a shoulder of the tread as recited in claim 36; that the tread further comprises at least one tread edge and wherein the grooves extend from the central area to the at least one tread edge as recited in claim 37; that the grooves have greater curvature in the central area than in an area of the at least one tread edge as recited in claim 38; that the grooves are oriented at a first angle, relative to a circumferential direction, in the central area and at a second angle, relative to the circumferential direction, in an area of the at least one tread edge, and wherein the first angle is different from the second angle as recited in claim 39; that the first angle is less than the second angle as recited in claim 40; that the first angle is less approximately 45 degrees and the second angle is greater than approximately 45 degrees as recited in claim 41; a method of making the tire of claim 1 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence to minimize tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two

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base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 42; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 44; that the one of the at least two base pitches comprises at least two profile structures having different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 45; that the one of the at least two base pitches comprises first and second profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth profile structures subdivided by at least two cross-grooves as recited in claim 46; that the first and second profile structures have different circumferential lengths as recited in claim 47; that the first and second profile structures have the same circumferential lengths as recited in claim 48; that the first and at least one of third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 49; that the second and at least one of the third, fourth and fifth profile structures are arranged in sequence after the first profile structure and have the same circumferential lengths as recited in claim 50; that at least two of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 51; that the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim

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52; that the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 53; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 54; that at least two of the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 55; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 56; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 57; that each of the base pitches comprises at least two profile structures as recited in claim 58; that each of the base pitches comprises the same number of profile structures as recited in claim 59; a method of making the tire of claim 43 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence that minimizes tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 60; that each of the first base pitches comprises at least two profile structures subdivided by at least one cross-groove and wherein each of the second base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 62; that the base pitches further comprises third base pitches, wherein the first, second and third base pitches have different circumferential lengths as recited in claim 63; that each of the third base pitches comprises at least three profile structures subdivided by at least two cross-grooves as

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recited in claim 64; that the tire further comprises first and second circumferential grooves arranged on opposite sides of the central circumferential groove and a plurality of pocket grooves opening out at the first and second circumferential grooves as recited in claim 65.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103.

Over EP '822 with Landers and Mori

Applicant respectfully traverses the rejection of claims 61 and 62 under 35 U.S.C. § 103(a) as unpatentable over EP '822 in view of US patent 4,700,762 to LANDERS and US patent 4,884,607 to MORI.

The Examiner acknowledged that EP '822 lacks, among other things, a directional tread having a central circumferential groove and the recited v-shaped grooves. However, the Examiner asserted that these features are taught by each of LANDERS and MORI and that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a tread comprising a tread comprising a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove, tread edges, and grooves, the grooves extending from the central circumferential groove to each of the tread edges, whereby oppositely extending grooves form V-shaped grooves which extend to the tread edges, each of the grooves having

greater curvature in the central area than in an area of the tread edges, the grooves and the profile structures being arranged on each side of the central circumferential groove forming base pitches, each base pitch having one groove and at least two profile structures having different circumferential lengths, the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise, the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove as recited in amended independent claim 61.

As explained above, while it is apparent that EP '822 discloses a tire having diagonal grooves 2b/3b which extend from a center area of the tread to the tread edges and base pitches having different circumferential lengths (see Fig. 2), it is clear from a fair review of the disclosure of this document that EP '822 does not disclose, or even suggest, that each base pitch has one groove and at least two profile structures having different circumferential lengths in combination with the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise and the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove. Applicant

notes that the tread in Fig. 2 of EP 822 merely shows two apparently different pitch lengths with two profile structures of each pitch length having the same circumferential length.

With regard to LANDERS, Applicant acknowledges that LANDERS discloses a tire having diagonal grooves 16 which extend from a center area of the tread to the tread edges and a central groove 14 (see Figs. 1 and 2). However, Applicant submits that LANDERS is entirely silent with regard to base pitches having different circumferential lengths. There is simply no apparent disclosure in this document with regard to utilizing different circumferential length base pitches. Furthermore, it is clear from a fair review of the disclosure of this document that LANDERS does not disclose, or even suggest, different length base pitches in combination with a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove and grooves extending from the central circumferential groove to each of the tread edges.

With regard to MORI, Applicant acknowledges that MORI discloses a tire having diagonal grooves 2 which extend from a center area of the tread to the tread edges and a central groove 1 (see Fig. 1). However, Applicant submits that MORI is entirely silent with regard to base pitches having different circumferential lengths. There is simply no apparent disclosure in this document with regard to utilizing different circumferential length base pitches. Furthermore, it is clear from a fair review of the disclosure of this document that MORI does not disclose, or even suggest, different length base pitches in combination with a central area having a central circumferential groove, profile structures arranged on

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opposite sides of the central circumferential groove and grooves extending from the central circumferential groove to each of the tread edges.

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 61. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of EP '822, LANDERS and MORI can render unpatentable the combination of features recited in at least independent claim 61.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied document in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 61 is not rendered obvious by any reasonable inspection of this disclosure.

Furthermore, Applicant submits that dependent claim 62 is allowable at least for the reason that this claim depends from an allowable base claim and because this claim recites additional features that further define the present invention. In particular, Applicant submits that no proper combination of EP '822, LANDERS and MORI discloses or suggests, in combination: that each of the first base pitches comprises at least two profile structures subdivided by at least one cross-groove and wherein each of the second base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 62.

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Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103.

Over EP '822 with Landers, Mori and JP '408 or EP '436

Applicant respectfully traverses the rejection of claims 63-65 under 35 U.S.C. § 103(a) as unpatentable over EP '822 in view of LANDERS and MORI and further in view of JP '408 or EP '436.

The Examiner acknowledged that EP '822 lacks, among other things, the recited three base pitches. However, the Examiner asserted that these features are taught by each of JP '408 and EP '436 and that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a tread comprising a tread comprising a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove, tread edges, and grooves, the grooves extending from the central circumferential groove to each of the tread edges, whereby oppositely extending grooves form V-shaped grooves which extend to the tread edges, each of the grooves having greater curvature in the central area than in an area of the tread edges, the grooves and the profile structures being arranged on each side of the central circumferential groove forming base pitches, each base pitch having one groove and at least two profile

structures having different circumferential lengths, the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise, the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove as recited in amended independent claim 61.

As explained above, while it is apparent that EP '822 discloses a tire having diagonal grooves 2b/3b which extend from a center area of the tread to the tread edges and base pitches having different circumferential lengths (see Fig. 2), it is clear from a fair review of the disclosure of this document that EP '822 does not disclose, or even suggest, that each base pitch has one groove and at least two profile structures having different circumferential lengths in combination with the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise and the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove. Applicant notes that the tread in Fig. 2 of EP 822 merely shows two apparently different pitch lengths with two profile structures of each pitch length having the same circumferential length.

With regard to LANDERS, Applicant acknowledges that LANDERS discloses a tire having diagonal grooves 16 which extend from a center area of the tread to the tread

edges and a central groove 14 (see Figs. 1 and 2). However, Applicant submits that LANDERS is entirely silent with regard to base pitches having different circumferential lengths. There is simply no apparent disclosure in this document with regard to utilizing different circumferential length base pitches. Furthermore, it is clear from a fair review of the disclosure of this document that LANDERS does not disclose, or even suggest, different length base pitches in combination with a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove and grooves extending from the central circumferential groove to each of the tread edges.

With regard to MORI, Applicant acknowledges that MORI discloses a tire having diagonal grooves 2 which extend from a center area of the tread to the tread edges and a central groove 1 (see Fig. 1). However, Applicant submits that MORI is entirely silent with regard to base pitches having different circumferential lengths. There is simply no apparent disclosure in this document with regard to utilizing different circumferential length base pitches. Furthermore, it is clear from a fair review of the disclosure of this document that MORI does not disclose, or even suggest, different length base pitches in combination with a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove and grooves extending from the central circumferential groove to each of the tread edges.

As explained above, while it is apparent that JP '408 discloses a tire having diagonal grooves 4, 7 and 8 which extend from a center area of the tread to the tread edges and that the tread apparently utilizes base pitches having different circumferential lengths A, B

and C (see Fig. 1), it is clear from a fair review of the disclosure of this document that JP '408 does not disclose or suggest, a central area having a central circumferential groove in combination with profile structures arranged on opposite sides of the central circumferential groove and grooves extending from the central circumferential groove to each of the tread edges. To the contrary, the tread in Figs. 1-3 fail to show any circumferential grooves. Furthermore, while it is apparent that Fig. 4 shows a tire having circumferential grooves, it is not apparent that this embodiment is disclosed as having the recited base pitches or even the different lengthy base pitches shown in Fig. 1. Thus, this document cannot cure the deficiencies of EP '822, LANDERS and MORI.

With regard to EP '436, Applicant acknowledges that EP '436 discloses a tire having different base pitch lengths (see Fig. 1). However, it is not apparent that EP '436 discloses or suggests diagonal grooves and/or grooves having a greater curvature in the central area than in an area of each tread edge. Thus, this document also cannot cure the deficiencies of EP '822, LANDERS and MORI.

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 61. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of EP '822, LANDERS, MORI, JP '408 and EP '436 can render unpatentable the combination of features recited in at least independent claim 61.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied document in the manner asserted by the

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Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 61 is not rendered obvious by any reasonable inspection of this disclosure.

Furthermore, Applicant submits that dependent claim 62 is allowable at least for the reason that this claim depends from an allowable base claim and because this claim recites additional features that further define the present invention. In particular, Applicant submits that no proper combination of EP '822, LANDERS, MORI, JP '408 and EP '436 discloses or suggests, in combination: that the base pitches further comprises third base pitches, wherein the first, second and third base pitches have different circumferential lengths as recited in claim 63; that each of the third base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 64; and that the tire may further comprise first and second circumferential grooves arranged on opposite sides of the central circumferential groove and a plurality of pocket grooves opening out at the first and second circumferential grooves as recited in claim 65.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103.

Over EP '822 with Boiocchi

Applicant respectfully traverses the rejection of claims 30, 31, 33 and 34 under 35 U.S.C. § 103(a) as unpatentable over EP '822 in view of US patent 5,964,266 to BOIOCCHI et al.

The Examiner acknowledged that EP '822 lacks, among other things, the recited cross-grooves. However, the Examiner asserted that these features are taught by BOIOCCHI and that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a circumferential groove arranged in a central area of the tread, the grooves running generally diagonally into the central area of the tread, the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, as recited in amended independent claim 1.

As explained above, while it is apparent that EP '822 discloses a tire having diagonal grooves 2b/3b which extend from a center area of the tread to the tread edges and base pitches having different circumferential lengths (see Fig. 2), it is clear from a fair review of the disclosure of this document that EP '822 does not disclose, or even suggest, at least two of the base pitches having different circumferential lengths in combination with one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at

least one cross-groove. Applicant notes that the tread in Fig. 2 of EP 822 merely shows two apparently different pitch lengths with two profile structures of each pitch length having the same circumferential length.

With regard to BOIOCCHI, Applicant acknowledges that BOIOCCHI discloses a tire having diagonal grooves 8 which extend from a center area of the tread to the tread edges and a central groove 12 (see Fig. 1). However, Applicant submits that BOIOCCHI is entirely silent with regard to base pitches having different circumferential lengths. There is simply no apparent disclosure in this document with regard to utilizing different circumferential length base pitches. Furthermore, it is clear from a fair review of the disclosure of this document that BOIOCCHI does not disclose, or even suggest, different length base pitches in combination with one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove.

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claim 1. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of EP '822 and BOIOCCHI can render unpatentable the combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify any of the applied document in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for

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the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of this disclosure.

Furthermore, Applicant submits that dependent claims 30, 31, 33 and 34 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of EP '822 and BOIOCCHI discloses or suggests, in combination: that the at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 30; that each at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 31; that a width of the first cross-groove is different than a width of at least one of the two second cross-grooves as recited in claim 33; and that a width of the first cross-groove is different than a width of each of the two second cross-grooves as recited in claim 34.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103.

CONCLUSION

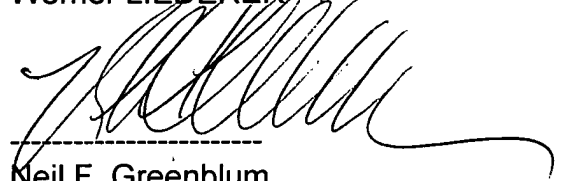
In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of the pending claims. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

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Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Authorization is hereby given to refund excess payments and charge any additional fee necessary to have this paper entered to Deposit Account No. 19-0089.

Respectfully submitted,
Werner LIEDERER

A handwritten signature in black ink, appearing to read 'Neil F. Greenblum', written over a horizontal dashed line.

Neil F. Greenblum
Reg. No. 28,394

January 10, 2006
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
703-716-1191

Robert W. Mueller
Reg. No. 35,043